

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027655**Date Inspected:** 24-May-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

13E Drop-In Panels (Interior)

This QA Inspector randomly observed ABF welders performing Shielded Metal Arc Welding (SMAW) on the Seismic Performance Critical Member (SPCM) Complete Joint Penetration (CJP) welds of the 13E Drop-In Panels on the interior of the OBG. This QA Inspector observed QC Inspector Sal Merino verify prior to the start of welding operations, that the minimum preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps and Travel Speed) were in accordance with ABF-WPS-D1. 5-1040C-CU. ABF welder Salvador Sandoval (ID 2202) and ABF welder Steven Davis (ID 7889) were observed performing SMAW in the 4G overhead positions on 13E-2.1 from opposite ends of the weld length. Throughout the shift the welders were observed cleaning the start/stop edges of the work utilizing small disc grinders to smooth and blend the transitions and compressed air to clear the debris. The welders were noted as continuing the production welding and between passes the QC Inspector verified the welding parameters and surface temperatures utilizing a Fluke 337 clamp meter to measure the electrical welding parameters and Tempilstik Heat Indicators for verifying the preheat and inter-pass temperatures. This QA Inspector noted that the electrodes were stored in electrically heated, thermostatically controlled oven after removal from the sealed containers. The exposure limits of the electrodes appeared to comply with the minimum storage oven temperature of 120 degrees Celsius as per the contract documents. This QA Inspector made subsequent observations throughout the shift to

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monitor quality and noted that the weld at 13E-2.1 had been completed on this date and appeared to be in general conformance with the contract specifications.

13E Drop-In Panels (Exterior)

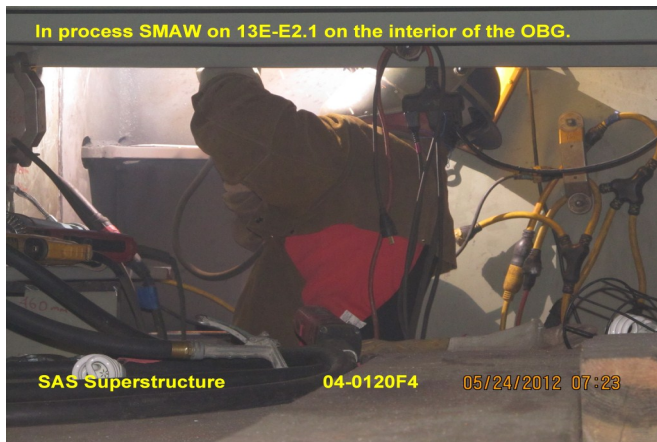
This QA Inspector made random observations of QC Inspector Steve Jensen performing Ultrasonic Inspection (UT) of the completed weld joint at 13E-2.8 from 10380mm to 7450mm. QC was observed scanning from each side of the weld and scanning patterns described in D1.5 6.24. It was noted that Mr. Jensen recorded Ten (10) rejectable indications and Eight (8) recordable indications. On subsequent observations to monitor quality it was noted that the work at this location was in progress and appeared to be in general conformance with the contract specifications and SE-UT-D1.5-CT-100.

13E PP122.2 Repair (Interior)

This QA Inspector randomly observed ABF welder Steven Davis performing the back-gouge operation of ultrasonic rejectable indications on "A" Deck Drop-In Panel overhead welds located at y+5500, y+5720 and y+5770 of 13E PP122.2 on the interior of the OBG. The Pro-Heat 35 thermal blankets were placed over the weld on the topside of the deck to pre-heat at a minimum of 325°F. The welder was observed performing the Carbon Air Arc method to remove metal from the root side of the weld. The work at this location is in progress and appeared to be in general conformance with the contract documents.

Summary of Conversations:

This QA Inspector discussed issues concerning the Drop-In Panels with QA Inspector Craig Hager.



Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

Inspected By: Frey,Doug

Quality Assurance Inspector

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Reviewed By: Levell,Bill

QA Reviewer